

FIG. 1 is a block diagram of a CAD system 100, illustrating a user 102 interacting with a GUI 106 and a script processor 108. The GUI 106 is connected to a User 102 and a Script 104. The Script 104 is connected to the Script Processor 108. The Script Processor 108 is connected to the GUI 106 and a Graphical Components 110. The Graphical Components 110 include a SceneFile 112, a Scene Component 116-1, a Scene Component 116-2, a Scene Component 116-3, and a Scene Component 116-N. The SceneFile 112 is connected to the Scene Components 116-1, 116-2, 116-3, and 116-N. The Scene Components 116-1, 116-2, 116-3, and 116-N are connected to a Scene File 114. The Scene File 114 is connected to a Native Types Metadata 130. The Native Types Metadata 130 includes Map Type 130-1, Light Type 130-2, and Native Type 130-N.

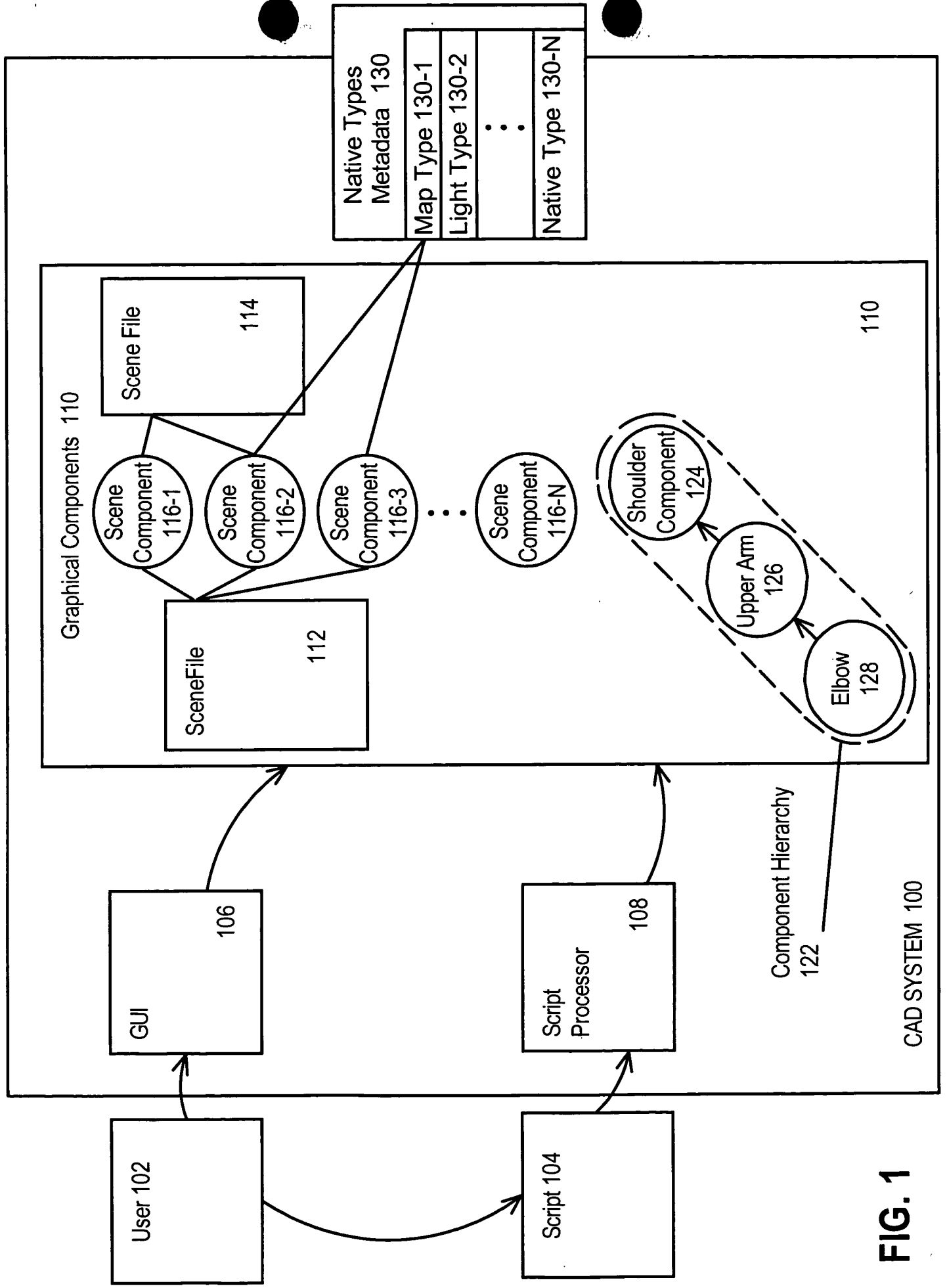


FIG. 1

Identifier - Pattern 214

Attribute identifier 216 Operation identifier 212

200 — $\underbrace{\text{box} * \text{position}} = [0,0,0]$

pattern-attribute identifier — 218

Hierarchy pattern identifier Operation identifier 222

220 — $\underbrace{\text{chicken} */ * \text{leg.position}} += [10,0,0]$

pattern-attribute identifier — 228

Container identifier 244 attribute identifier Operation identifier 242

240 — $\underbrace{\text{boxarray.position}} = [0,0,0]$

collection-attribute identifier — 248

Native type identifier 254 attribute identifier Operation identifier 252

260 — $\underbrace{\text{lights.value}} * = 0.5$

collection-attribute identifier — 258

FIG. 2

FIG. 3

